

## IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A display device comprising:

a pixel portion including  $m \times n$  pixels ( $m$  and  $n$  are both natural numbers and satisfy the relation  $m < n$ ), said pixels each having a ~~first~~ TFT;

a gate driver having a ~~second~~ first N-channel TFT for feeding  $n$  gate signal lines with selection signals;

a source driver having a ~~third~~ second N-channel TFT for feeding  $m$  source signal lines with video data; and

a video data converter circuit,

wherein said video data converter converts a digital video datum  $(h, k) \{ (h = 1, 2, 3, \dots, m-1, m) \text{ and } (k = 1, 2, 3, \dots, n-1, n) \}$  into  $\{m \times (k - 1) + h\}$ -th video datum, and

wherein said ~~first~~ TFT has a first LDD region not overlapped by a gate electrode of said ~~first~~ TFT, and each of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT has a second LDD region overlapped by gate electrodes of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT respectively.

2. (currently amended) A display device comprising:

a pixel portion including  $m \times n$  pixels (in a pixel  $(h, k)$ ,  $(h = 1, 2, 3, \dots, m-1, m)$  and  $(k = 1, 2, 3, \dots, n-1, n)$ , with  $m$  and  $n$  both being natural numbers and satisfying the relation  $m < n$ ), said pixels each having a ~~first~~ TFT;

a gate driver having a ~~second~~ first N-channel TFT for feeding  $n$  gate signal lines with

selection signals;

a source driver having a ~~third~~ second N-channel TFT for feeding **m** source signal lines with video data; and

a video data converter circuit,

wherein said video data converter converts a digital video datum (**h**, **k**) into  $\{\mathbf{m} \times (\mathbf{k} - 1) + \mathbf{h}\}$ -th video datum, and

wherein said ~~first~~ TFT has a first LDD region not overlapped by a gate electrode of said ~~first~~ TFT, and each of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT has a second LDD region overlapped by gate electrodes of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT respectively.

3. (previously presented) A rear projector using three display devices according to claim 1.
4. (previously presented) A front projector using three display devices according to claim 1.
5. (previously presented) A rear projector using one display device according to claim 1.
6. (previously presented) A front projector using one display device according to claim 1.
7. (previously presented) An electronic equipment comprising the display device according to claim 1 is selected from the group consisting of a head mount display, a computer, a video camera, a DVD player, and a display apparatus.

8. (previously presented) A rear projector using three display devices according to claim 2.
9. (previously presented) A front projector using three display devices according to claim 2.
10. (previously presented) A rear projector using one display device according to claim 2.
11. (previously presented) A front projector using one display device according to claim 2.
12. (previously presented) An electronic equipment comprising the display device according to claim 2 is selected from the group consisting of a head mount display, a computer, a video camera, a DVD player, and a display apparatus.
13. (previously presented) The display device according to claim 1 is a liquid crystal display device.
14. (previously presented) The display device according to claim 2 is a liquid crystal display device.
15. (currently amended) A display device comprising:
- a pixel portion including  $m \times n$  pixels ( $m$  and  $n$  are both natural numbers and satisfy the relation  $m < n$ ), said pixels each having a first TFT;
- a gate driver having a ~~second~~ first N-channel TFT for feeding  $n$  gate signal lines with selection signals;

a source driver having a ~~third~~ second N-channel TFT for feeding  $m$  source signal lines with video data; and

a video data converter circuit,

wherein said video data converter converts a digital video datum  $(h, k) \{ (h = 1, 2, 3, \dots, m-1, m) \text{ and } (k = 1, 2, 3, \dots, n-1, n) \}$  into  $\{m \times (k - 1) + h\}$ -th video datum;

wherein said video data converter circuit has a video formatter, a memory and an address generator, and

wherein said ~~first~~ TFT has a first LDD region not overlapped by a gate electrode of said ~~first~~ TFT, and each of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT has a second LDD region overlapped by gate electrodes of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT respectively.

16. (previously presented) An electronic equipment comprising the display device according to claim 15 is selected from the group consisting of a front projector, a rear projector, a head mount display, a computer, a video camera, a DVD player, and a display apparatus.

17. (previously presented) The display device according to claim 15 is a liquid crystal display device.

18. (currently amended) A display device comprising:

a pixel portion including  $m \times n$  pixels ( $m$  and  $n$  are both natural numbers and satisfy the relation  $m < n$ ), said pixels each having a ~~first~~ TFT;

a gate driver having a ~~second~~ first N-channel TFT for feeding  $n$  gate signal lines with

selection signals;

a source driver having a ~~third~~ second N-channel TFT for feeding  $m$  source signal lines with video data; and

a video data converter circuit,

wherein said video data converter converts a digital video datum  $(h, k) \{ (h = 1, 2, 3, \dots, m-1, m) \text{ and } (k = 1, 2, 3, \dots, n-1, n) \}$  into  $\{m \times (k - 1) + h\}$ -th video datum,

wherein said gate driver is formed at a lateral side of said pixel portion,

wherein said source driver is formed at a longitudinal side of said pixel portion, and

wherein said ~~first~~ TFT has a first LDD region not overlapped by a gate electrode of said ~~first~~ TFT, and each of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT has a second LDD region overlapped by gate electrodes of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT respectively.

19. (previously presented) An electronic equipment comprising the display device according to claim 18 is selected from the group consisting of a front projector, a rear projector, a head mount display, a computer, a video camera, a DVD player, and a display apparatus.

20. (previously presented) The display device according to claim 18 is a liquid crystal display device.

21. (currently amended) A display device comprising:

a pixel portion including  $m \times n$  pixels ( $m$  and  $n$  are both natural numbers and satisfy the relation  $m < n$ ), said pixels each having a ~~first~~ TFT;

a gate driver having a ~~second~~ first N-channel TFT for feeding  $n$  gate signal lines with selection signals;

a source driver having a ~~third~~ second N-channel TFT for feeding  $m$  source signal lines with video data; and

a video data converter circuit,

wherein said video data converter converts a digital video datum  $(h, k) \{ (h = 1, 2, 3, \dots, m-1, m) \text{ and } (k = 1, 2, 3, \dots, n-1, n) \}$  into  $\{m \times (k - 1) + h\}$ -th video datum,

wherein said  $n$  gate signal lines are vertical and said  $m$  source signal lines are horizontal, and

wherein said ~~first~~ TFT has a first LDD region not overlapped by a gate electrode of said ~~first~~ TFT, and each of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT has a second LDD region overlapped by gate electrodes of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT respectively.

22. (previously presented) An electronic equipment comprising the display device according to claim 21 is selected from the group consisting of a front projector, a rear projector, a head mount display, a computer, a video camera, a DVD player, and a display apparatus.

23. (previously presented) The display device according to claim 21 is a liquid crystal display device.

24. (previously presented) A rear projector using three display devices according to claim 15.

15. 25. (previously presented) A front projector using three display devices according to claim 15.
26. (previously presented) A rear projector using one display device according to claim 15.
27. (previously presented) A front projector using one display device according to claim 15.
28. (previously presented) A rear projector using three display devices according to claim 18.
18. 29. (previously presented) A front projector using three display devices according to claim 18.
30. (previously presented) A rear projector using one display device according to claim 18.
31. (previously presented) A front projector using one display device according to claim 18.
32. (previously presented) A rear projector using three display devices according to claim 21.
21. 33. (previously presented) A front projector using three display devices according to claim 21.
34. (previously presented) A rear projector using one display device according to claim 21.

35. (previously presented) A front projector using one display device according to claim 21.

36. (currently amended) A display device comprising:

a pixel portion including  $m \times n$  pixels (in a pixel  $(h, k)$ , ( $h = 1, 2, 3, \dots, m-1, m$ ) and ( $k = 1, 2, 3, \dots, n-1, n$ ), with  $m$  and  $n$  both being natural numbers and satisfying the relation  $m < n$ ), said pixels each having a ~~first~~ TFT;

a gate driver having a ~~second~~ first N-channel TFT for feeding  $n$  gate signal lines with selection signals;

a source driver having a ~~third~~ second N-channel TFT for feeding  $m$  source signal lines with video data; and

a video data converter circuit,

wherein said video data converter converts a digital video datum  $(h, k)$  into  $\{m \times (k - 1) + h\}$ -th video datum,

wherein said video data converter circuit has a video formatter, a memory and an address generator, and

wherein said ~~first~~ TFT has a first LDD region not overlapped by a gate electrode of said ~~first~~ TFT, and each of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT has a second LDD region overlapped by gate electrodes of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT respectively.

37. (previously presented) A rear projector using three display devices according to claim 36.

38. (previously presented) A front projector using three display devices according to claim



36.

39. (previously presented) A rear projector using one display device according to claim 36.

40. (previously presented) A front projector using one display device according to claim 36.

41. (previously presented) An electronic equipment comprising the display device according to claim 36 is selected from the group consisting of a head mount display, a computer, a video camera, a DVD player, and a display apparatus.

42. (previously presented) The display device according to claim 36 is a liquid crystal display device.

43. (currently amended) A display device comprising:

a pixel portion including  $m \times n$  pixels ( $m$  and  $n$  are both natural numbers and satisfy the relation  $m < n$ ), said pixels each having a first TFT;

a gate driver having a ~~second~~ first N-channel TFT for feeding  $n$  gate signal lines with selection signals;

two source drivers each having a ~~third~~ second N-channel TFT for feeding  $m$  source signal lines with video data; and

a video data converter circuit,

wherein said video data converter converts a digital video datum  $(h, k) \{ (h = 1, 2, 3, \dots, m-1, m) \text{ and } (k = 1, 2, 3, \dots, n-1, n) \}$  into  $\{m \times (k - 1) + h\}$ -th video datum, and

wherein said ~~first~~ TFT has a first LDD region not overlapped by a gate electrode of said ~~first~~ TFT, and each of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT has a second LDD region overlapped by gate electrodes of said ~~second~~ first N-channel TFT and said ~~third~~ second N-channel TFT respectively.

- 44. (previously presented) A rear projector using three display devices according to claim 43.
- 45. (previously presented) A front projector using three display devices according to claim 43.
- 46. (previously presented) A rear projector using one display device according to claim 43.
- 47. (previously presented) A front projector using one display device according to claim 43.
- 48. (previously presented) An electronic equipment comprising the display device according to claim 43 is selected from the group consisting of a head mount display, a computer, a video camera, a DVD player, and a display apparatus.
- 49. (previously presented) The display device according to claim 43 is a liquid crystal display device.